

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P845630

Luminaire Tested: SQ2R-PR1-100D-940-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

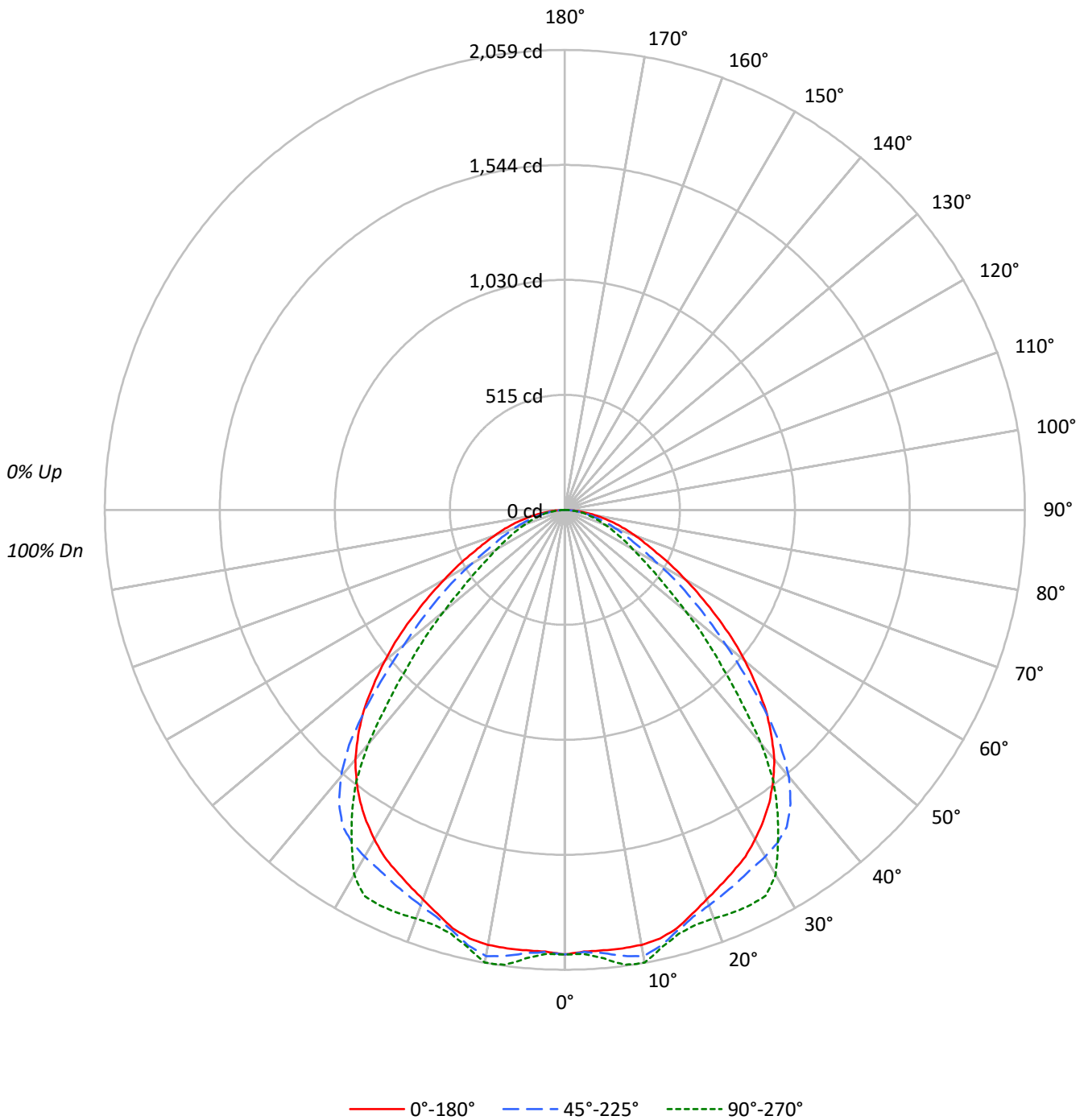
Test Method: LM-79-2019  
Report Number: P845630  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PR1-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE RIPPLE CONTINUOUS LENS  
1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4787.6 lumens  
Efficiency: N/A  
Efficacy: 127.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.33 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9969  
Total Harmonic Distortion (THDi): 0.066  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 3 HR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				75
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65				65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56				56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	52	50				50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44				44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41	39				39
8	64	51	43	38	63	51	43	38	49	42	38	48	42	37	47	41	37	35				35
9	60	47	40	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29				29

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	32130	32130	32130
5°	32088	32285	32679
10°	32426	33257	33755
15°	32415	32585	32856
20°	31892	32380	33460
25°	31801	32705	34837
30°	31767	33432	35171
35°	31466	34144	32745
40°	30741	32878	28816
45°	29088	28857	22788
50°	26445	23591	17681
55°	23240	19415	13762
60°	20108	15526	11331
65°	17360	12863	9918
70°	15607	11396	8809
75°	14298	9869	8097
80°	12450	7922	7922
85°	9022	7132	3761

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 31497 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	192.1	4.0
10°-20°	556.5	11.6
20°-30°	860.6	18.0
30°-40°	1036.2	21.6
40°-50°	930.3	19.4
50°-60°	621.0	13.0
60°-70°	360.8	7.5
70°-80°	185.5	3.9
80°-90°	44.6	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1609.2	33.6
0°-40°	2645.5	55.3
0°-60°	4196.8	87.7
0°-90°	4787.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4787.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1980	2014	1992	1996	2016	189
15°	1939	2020	1949	1956	1966	545
25°	1785	1858	1836	1903	1956	824
35°	1596	1611	1732	1700	1661	996
45°	1274	1379	1264	1067	998	976
55°	826	858	690	534	489	741
65°	454	464	337	274	260	458
75°	229	223	158	134	130	243
85°	49	38	38	26	20	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1990.0	1990.0	1990.0	1990.0	1990.0
2.5°	1979.8	2010.2	1981.8	1983.9	1990.0
5°	1979.8	2014.3	1992.0	1996.0	2016.3
7.5°	1979.8	2026.5	2014.3	2028.5	2054.9
10°	1977.8	2036.6	2028.5	2030.5	2058.9
12.5°	1965.6	2036.6	1998.1	1994.0	2006.2
15°	1939.2	2020.4	1949.4	1955.5	1965.6
17.5°	1896.6	1981.8	1910.8	1931.1	1947.4
20°	1856.1	1939.2	1884.5	1912.9	1947.4
22.5°	1819.6	1902.7	1860.1	1902.7	1953.4
25°	1785.1	1858.1	1835.8	1902.7	1955.5
27.5°	1750.6	1797.2	1811.4	1904.8	1947.4
30°	1703.9	1732.3	1793.2	1872.3	1886.5
32.5°	1653.2	1667.4	1768.8	1801.3	1774.9
35°	1596.4	1610.6	1732.3	1699.9	1661.3
37.5°	1531.5	1555.9	1659.3	1576.1	1533.5
40°	1458.5	1507.2	1559.9	1417.9	1367.2
42.5°	1369.2	1454.4	1428.1	1237.4	1172.5
45°	1273.9	1379.4	1263.8	1067.0	998.0
47.5°	1162.3	1275.9	1091.3	912.8	849.9
50°	1052.8	1140.0	939.2	774.9	703.9
52.5°	941.2	998.0	809.4	645.1	582.2
55°	825.6	858.1	689.7	533.5	488.9
57.5°	718.1	740.4	584.2	444.2	409.8
60°	622.7	636.9	480.8	377.3	350.9
62.5°	535.5	545.7	397.6	320.5	302.2
65°	454.4	464.5	336.7	273.8	259.6
67.5°	387.4	393.5	286.0	235.3	221.1
70°	330.6	332.7	241.4	196.8	186.6
72.5°	279.9	275.9	198.8	164.3	158.2
75°	229.2	223.1	158.2	133.9	129.8
77.5°	180.5	174.5	117.7	107.5	107.5
80°	133.9	125.8	85.2	85.2	85.2
82.5°	91.3	79.1	60.9	60.9	58.8
85°	48.7	38.5	38.5	26.4	20.3
87.5°	16.2	16.2	6.1	6.1	6.1
90°	0.0	0.0	0.0	0.0	0.0



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**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	22.76	24.26	23.13	24.57	24.89	19.49	20.99	19.86	21.30	21.61
	3H	24.04	25.38	24.42	25.71	26.07	20.60	21.94	20.98	22.27	22.63
	4H	24.52	25.77	24.92	26.12	26.50	21.03	22.28	21.43	22.63	23.01
	6H	24.87	26.02	25.28	26.39	26.78	21.39	22.55	21.80	22.91	23.30
	8H	24.97	26.06	25.39	26.45	26.86	21.49	22.59	21.92	22.98	23.38
	12H	25.01	26.07	25.45	26.45	26.88	21.52	22.57	21.95	22.95	23.38
4H	2H	22.92	24.17	23.32	24.52	24.89	20.13	21.38	20.53	21.73	22.11
	3H	24.44	25.47	24.85	25.88	26.28	21.46	22.49	21.87	22.89	23.29
	4H	25.06	25.99	25.49	26.40	26.84	21.98	22.91	22.42	23.33	23.77
	6H	25.54	26.35	26.00	26.79	27.25	22.45	23.26	22.91	23.70	24.16
	8H	25.69	26.44	26.15	26.88	27.35	22.58	23.34	23.05	23.78	24.25
	12H	25.77	26.44	26.25	26.92	27.39	22.63	23.30	23.12	23.78	24.25
8H	4H	25.13	25.88	25.59	26.32	26.79	22.33	23.08	22.80	23.53	24.00
	6H	25.70	26.32	26.19	26.81	27.29	22.89	23.51	23.38	24.00	24.48
	8H	25.89	26.45	26.41	26.96	27.45	23.07	23.63	23.59	24.14	24.63
	12H	26.02	26.52	26.53	27.01	27.58	23.16	23.66	23.67	24.15	24.71
12H	4H	25.11	25.78	25.60	26.26	26.73	22.38	23.05	22.86	23.53	24.00
	6H	25.68	26.24	26.20	26.75	27.24	22.95	23.51	23.46	24.02	24.50
	8H	25.92	26.41	26.43	26.91	27.47	23.18	23.67	23.69	24.17	24.73